

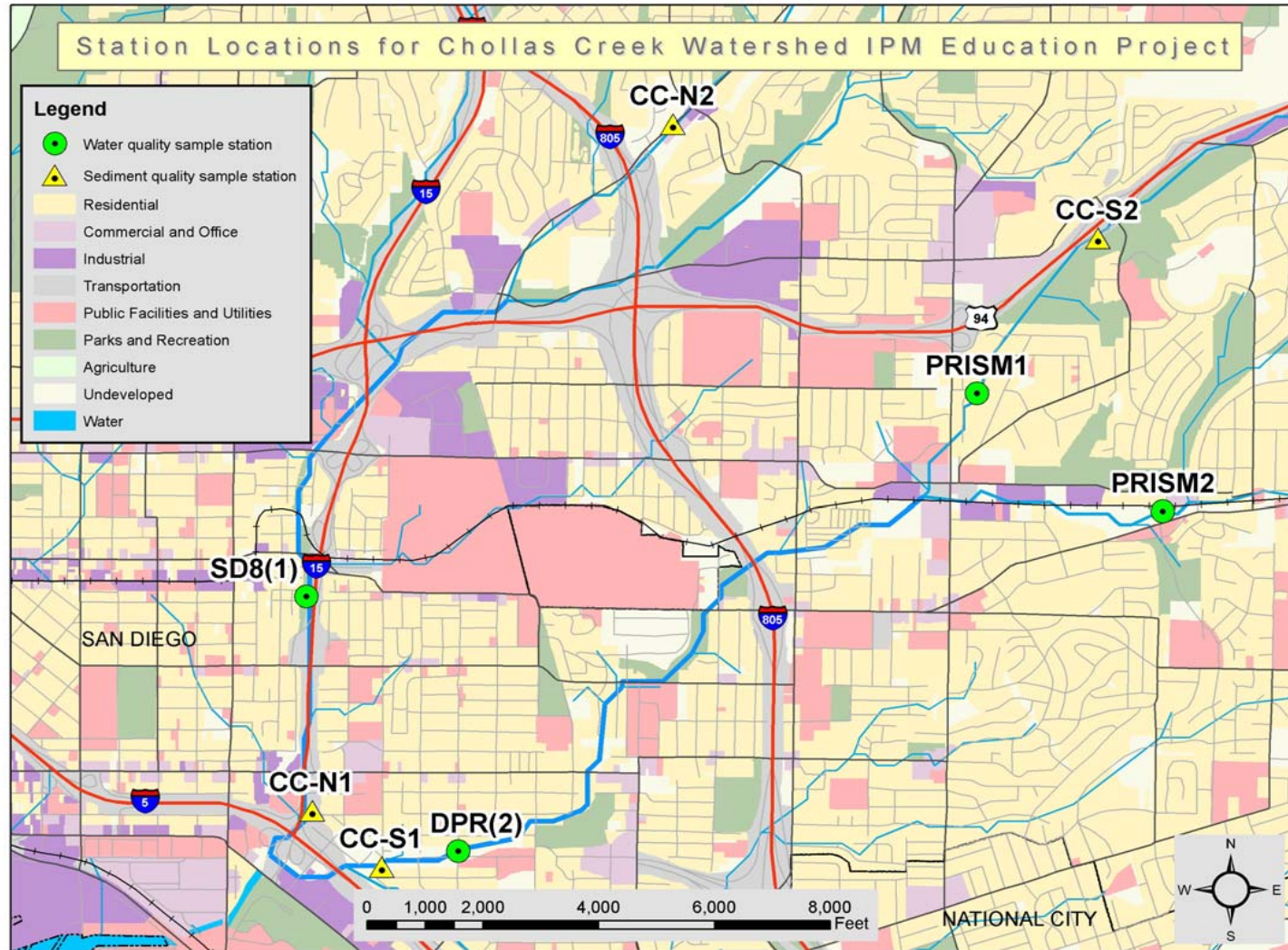
# Chollas, Paleta and Switzer Creek Watersheds Monitoring: A Municipal Perspective

City of San Diego

# Monitoring: Chollas Creek

- SD8-1: Regional Monitoring station; 1993-current; above the tidal prism; water and sediment chemistry
- Regional Monitoring sediment sampling at mouth of creek
- DPR stations 1-9: throughout watershed; pesticides; three rain events in 2000-2001
- IPM PRISM Grant: 3 stations including previous DPR station; water chemistry and sediments

# Chollas Creek Sampling Sites





# Chollas Creek Sampling Sites

Station DPR(2)



Station PRISM 2



Station PRISM 1



Station SD8(1)



# Sediment Monitoring Results

## Summary

- Historical data (1999-2001) indicate significantly lower concentrations of metals and PAHs detected in upstream sample (SD8-1) compared to creek mouth
  - Lead (2-3X), Copper (20X), Zinc (1.5-6X)
- Recent PRISM data indicates non-detectable levels of OP pesticides in upstream sediments per SWAMP requirements
- Recent upstream PRISM data confirmed historical metals findings that concentrations do not indicate that upstream sources are a significant portion of the contribution to San Diego Bay
- Greater metals contribution from South Fork

# Water Quality Results Summary

- SD8-1: historical data indicates consistent exceedances of the water quality objectives for diazinon, copper and zinc; lead exceeds at a much lesser frequency
- Recent PRISM data confirmed consistent exceedances of copper and zinc. Diazinon and lead exceeded only during first flush rain events

# Monitoring – Paleta Creek

- Sediment Assessment Study at Mouth of Paleta Creek — Southern California Coastal Water Research Project and Space and Naval Warfare Systems Center
- 17 Stations at Mouth
- Results reported in the Draft Phase I Report — Sept. 2004
- Phase II Results — reported Jan. 2005 — 2 Sediment samples at Mouth

# Sediment Results

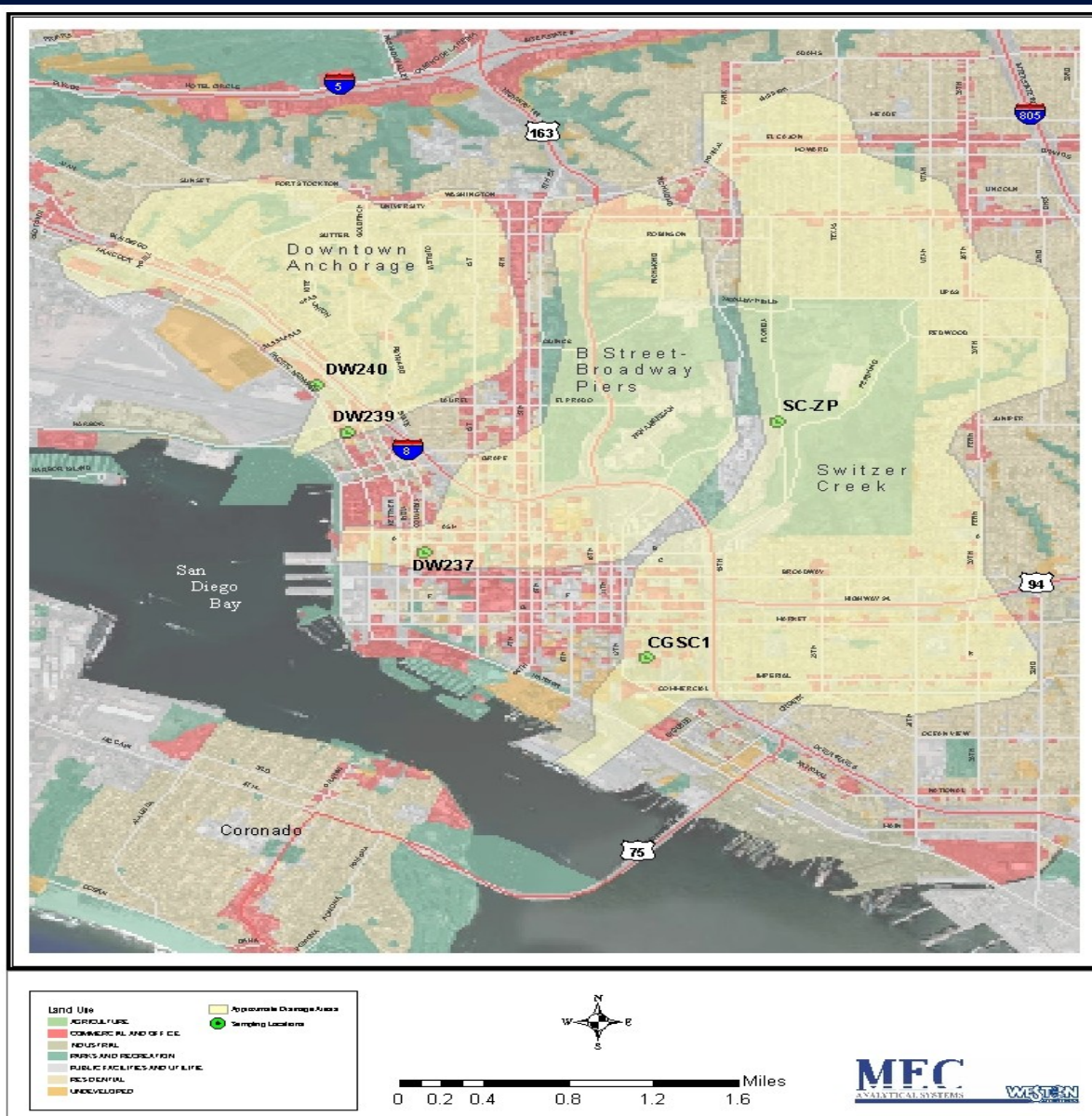
- Weight of Evidence Results indicate possible to likely impairment
- Copper, lead and zinc detected significantly above reference sites – no up-stream sediment collected for comparison or to define contributions
- Chlordane, DDT and PAHs detected – TIE results indicate organic compounds likely cause



# Monitoring: Switzer Creek

- Former Regional Monitoring mass loading station; 1993-winter 1996; station eliminated due to tidal intrusion; water quality constituents only
- Common Grounds Grant:
  - Single sediment station – sampled once - analyzed for OP pesticides and Synthetic Pyrethroids
  - Single water quality stations – One Wet weather and 3 dry weather events – analyzed for full suite of water quality parameters; data is preliminary

# Switzer Creek Sampling Sites



# Monitoring Results Summary

- Common Grounds preliminary data:
  - Sediment - data indicates non-detections of OP pesticides and synthetic pyrethroids – Copper, lead and zinc concentrations exceed TEL but not PEL – Mercury exceeds PEL – PAHs and PCBs not analyzed
  - Water Quality – Non-detectable levels of DDT, PCBs, and synthetic pyrethroids – total PAHs and metals highest during June dry weather event

# City of San Diego Conclusions

- Chollas up-stream (above tidal influence) sediment and storm water results indicate not a significant contributor to constituent concentrations and related toxicity at the mouth (lead, PAHs, chlordane, & DDT)
- Data not available to assess up-stream urban runoff contribution to constituent loading and toxicity at mouth of Paleta Creek - Phase II study indicated no seasonal pattern – creeks input not driving factor
- Preliminary data for Switzer Creek indicates upstream sediment and urban runoff not a contributor to pesticide loading and impact at mouth – dry weather flow contributes higher metals and PAHs – Need to confirm upstream sediment contribution of PAHs



# City of San Diego Recommendations

- City of San Diego cannot support assigning load contributions at this time
- Need to continue data analysis to determine data gaps and where modeling can be applied
- Based on future estimates, need to determine if consistent contributions are accurate
- Better qualification of sources with attention to aerial deposition and potential hot spots

# City of San Diego Recommendations

- Perform additional watershed water and sediment monitoring to support sediment and constituent load modeling
- Perform modeling to better define upstream contributions to toxicity at the mouth of creeks
- Perform watershed fate and transport sediment study and impacts at the mouth of the creeks